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CATCHING THE CAMELOPARD.

Le Vaillant had succeeded in killing a Camelopard in Africa, and in transporting the skin to Paris, many years before anything more happened, to satisfy the curiosity of civilized nations respecting that rare and remarkable animal. The stuffed figure which we have before noticed, (p. 226,) remained for years in the fine museum of the Garden of Plants, the admiration of naturalists, as well as of common spectators: but, among all the various living animals in the neighboring grounds, collected from all parts of the world, none was to be found which could claim to be of the same species; while in the adjacent halls, which contained the celebrated cabinet of comparative anatomy, so long under the charge of Cuvier, not a bone could be found corresponding with those of Le Vaillant's prize.

A few years ago notices were occasionally seen in European journals, of Camelopards about to be sent from Africa, as presents to some of the potentates; and ere long a paragraph written at the Cape of Good Hope announced that a singular procession had made its appearance at Cape Town, which excited the greatest surprise. It was a party of natives led by an enterprising foreigner, with a caravan of wagons, drawn by oxen, returning from a journey of many months to the Kalliharry Desert, bringing fourteen Camelopards, which had been caught expressly for the purpose of being brought to the United States for exhibition. The difficulties attending the expedition were spoken of as very great, and admiration was expressed at the ingenuity and skill of the leader, by which he had been able to succeed in an undertaking requiring uncommon intelligence and perseverance. The extremely delicate nature of the animals was particularly alluded to, which, in the opinion of the writer, would have rendered it impossible to bring so many young and old Camelopards alive to the Cape.

This news was naturally well received in our country: but it was ere long followed by a notice that the animals, before they could be shipped to cross the Atlantic, had been much reduced in numbers by death; so that there seemed to be much reason to apprehend that the labor, pains and expense of the traveller would be lost to us and to himself. At the end of a few weeks, however, a vessel arrived at New York, bringing Messrs. Welch and Macomber, with two Camelopards, the only remains of the original drove; and they were soon exhibited to the public on a vacant piece of ground on Broadway, between Broome and Spring streets, now covered with buildings. We shared with others in the interest naturally inspired by such a sight; and, in the course of repeated interviews with the proprietors, obtained some particulars of the observations made in the course of the journey into the African continent, as well as of the nature and habits of the animals for whose capture it had been undertaken.

A long, fatiguing and dangerous route was first to be taken, through various regions and climates, the latter part of which lay upon the Great Southern Desert of Africa: an immense and almost unknown territory, inhabited by numerous animals. Immense herds of antelopes, of various sizes, belonging to the sixty species known in that continent, find their pasture in different districts at different seasons, as do the quaggas, zebras and other grazing animals. These were seen in countless droves by the travellers; who sometimes met them on their periodical migrations, when, like the buffaloes, or rather bisons, of our western wilds, and the sheep of Spain, they instinctively leave one place when the grass fails, and move to a distant one where they may find pasture.

On reaching the parts of the desert inhabited by the Camelopard, the mimosa trees, its favorite food, gave indication that they were approaching the end of their journey; and the animals soon began to make their appearance. But their timidity, fleetness and long endurance of fatigue, rendered every attempt to capture them alive almost hopeless. They would outrun and tire out the swiftest horse; and it seemed impossible to entrap them by any wile. At the same time, they were of so delicate a constitution, that they must be expected to suffer more than most other animals from a slight injury. The natives who were in the company, though useful for many other purposes, and ready to give information on other matters, could offer no assistance in devising a way of taking a Camelopard alive: so that all was left with the persevering foreigner at the head of the expedition.

No means remained from which he

could hope success except the lazo: the long, noosed rope used by the South Americans, of which he had no particular knowledge. He determined, however, to acquire the art of using it; and first set himself to make one.

After many experiments he began to throw a noosed rope over the heads of his horses with some dexterity, first while walking, and gradually while moving at a quicker rate.

Perseverance was necessary before our enterprising traveller was able to attain much skill in the use of the lazo: but, when once sufficiently accustomed to throw it at an animal in motion he began to quicken his pace and that of the object pursued, and daily gained in precision of aim, and in that coolness and confidence, which are indispensable to a master-hand. At length he felt that the time had arrived for the practical application of his newly acquired art; and, mounting a fleet horse, set of in pursuit of a Camelopard.

These creatures had been frequently in sight during the time spent at the encampment, as well as on the journey; and many opportunities had been afforded for observing their habits in the state of nature. As usual with other animals, they are fitted, by form and construction, to procure the food which is provided for their supply, and adapted to their nourishment. They feed principally on the leaves and twigs of a species of mimosa, which thrives abundantly in the great Kalliharry desert—that great southern waste in the African continent, 1200 miles from the Cape of Good Hope, of which so little is known to us. As the plant is tall, though by no means a large tree, no quadruped of ordinary height would be able to reach the branches, as they are not of the trailing or drooping kind. The extraordinary stature of the Camelopard, however, renders it perfectly easy, far more so than if its food, like that of the horse or ox, were placed near the ground. Indeed, it is a task of considerable difficulty with it to bring its head down to a level with its feet; and this many of us had opportunities to see, at the exhibition in this city. When a pail of water was placed on the ground, the Camelopards had to spend sometime in preparation, before they could drink. They gradually placed their fore feet at a distance apart, until they had considerably lowered their breasts, and then bending down their long necks, seemed barely able to accomplish their object.

But the mimosa of the desert, like other plants of its genus, is armed with many strong and sharp thorns, which would cruelly tear the mouths of any common animal that might attempt to feed on it. On this point also, the camelopard is prepared. His mouth is lined with a thick skin, and his tongue is so strong, hard and insensible, that the thorns are broken down by it, and inflict no injury. Indeed the tongue is one of the most singular and wonderful parts of this extraordinary animal: for it is very long when extended, manageable by muscles in a manner unlike that member in other animals, being flexible, extensible and able to grasp with considerable power. It serves the purpose of hands in a great degree, and may, in several respects, be compared with the trunk of an elephant. Among the mimosas the Camelopards were often seen, by our travellers, raising their heads, and running out their tongues and twining them round the twigs, then drawing them forcibly back, so as to strip them in an instant of their young and tender shoots. These, mingled with the young thorns, formed a mouthful, which was eaten with avidity; and the operation was repeated until the appetite was satisfied. Then, resting in the shade or bounding across the plain, the gigantic animals seemed to set the wind at defiance.

But our enterprising Scotchman had his preparations made for the chase; and he set off on his best horse, with his long lazo in hand, to try his skill on the fleet tenant of the wilds. But he was not long in finding the disproportion between the legs of the two animals. As might have been expected, the Camelopard, when really exerting itself can move with much greater velocity; and all hope of overtaking him in a fair chase was soon abandoned in despair. The pursuer, however, noticed that a Camelopard he saw on one side, ran in a line a little inclined to the front. As the chase proceeded, the Camelopard gradually bent his course further in that direction, so that the pursuer found it necessary to guide his horse a little more that way. The Camelopard did this, because he kept one eye fixed on his pursuer, and thus moved on the arc of a larger circle. At length he threw his lazo, and caught a prize.

History of the Thames Tunnel

Concluded from page 330.

In order to have sufficient thickness of ground to pass under the deep part of the river, the excavation was carried on a declivity of 2 feet 3 inches per hundred feet.

It must be remarked here, that the excavation which has been made for the Thames Tunnel is 38 feet in breadth, and 22 feet 6 inches in height, presenting a sectional area of 850 feet, and exceeding 60 times the area of the drift which had been attempted as before alluded to. For a more comprehensive illustration of the magnitude of the excavation made for the Tunnel under the Thames, it may not be improper to mention, that it is larger than the interior of the old House of Commons, which, being 32 feet in breadth by 25 feet in height, was only 800 feet in sectional area; and it may further be observed, that the base of this excavation, in the deepest part of the river, is 75 feet below high water.

It is by means of a powerful apparatus, which has been designated a "shield," that this extensive excavation has been effected, and that the double arcade, which now extends to nearly the middle of the river, has at the same time been constructed within it. This shield consists of 12 great frames, lying close to each other, like as many volumes on the shelf of a book-case: these frames are 22 feet in height by 3, (See Am. Mag. p. 248.) They are divided into three stages or stories, thus presenting 36 chambers, or cells for the operators to work in—namely, the miners, by whom the ground is cut down and secured in front; and the bricklayers, by whom the structure is simultaneously formed from the back of these cells.

Powerful and efficient as this apparatus has proved to be in accomplishing so considerable a part of the work as that which has been done, the influence of the tide upon some portion of the strata that constitute the bed of the river, is a circumstance which contributed more than any other to increase the labor, and to multiply the difficulties, and also in giving them occasionally an awful character. That influence upon some of the strata, or upon some portions of the strata, has not been noticed by the drift makers, owing most probably to the circumstance that more than nine tenths of their excavation had been carried on under a b d of rock.

The shield was placed in its first position at the bottom of the shaft by the 1st of January, 1826, and the structure of the double archway of the Tunnel was commenced under a bed of clay; but on the 25th of the same month the substantial protection of clay was discovered to break off at once, leaving the shield for upwards of six weeks open to a considerable influx of the land water, copiously issuing from a bed of sand and gravel fed at each tide: the progress of the work was in consequence much impeded during that time.

On the 11th of March this fault or break in the clay was cleared, and the shield being again under a bed of clay, the work proceeded, and on the 30th of June, 1826, arrived even with the margin of the river, increasing daily in its progress; and by the 30th of April, 1827, the Tunnel had advanced 400 feet under the bed of the river; these 400 feet of the Tunnel were excavated, and the double archways substantially completed with brickwork in ten months and a half. On the 18th of May, 1827, and again in the month of January, 1828, the river broke in, and filled the Tunnel, thereby occasioning the apprehension that this singular undertaking, which had given such great apprehension, and had caused so much excitement, not merely in England, but in all parts of the Continent, must be abandoned; but, after closing, with strong bags of clay, the holes or chasms in the bed of the river where the irruptions had occurred, upon re-entering the Tunnel the structure was found in a most satisfactory state, and perfectly sound, thus affording the strongest proof of the efficiency of Mr. Brunel's system of constantly protecting as much as possible every part of the soil during the excavation, and finishing the structure in the most solid manner as the work proceeded; it being evident that the work already done must have been abandoned, if any part of it had been carried away by the irruption of the river.

Subsequent to the irruptions of the river before mentioned, such was the desire to see the work completed, that several hundred plans were tendered for filling up the cavity, as well as for preventing future accidents. When the disadvantages are considered under which

these proposals were made, without the projectors of them having possessed any information of the depth and rapidity of the river, of the curvature of its bed, or even of the nature of the soil under which the excavation was to be carried on, it cannot be surprising that the Engineer found among them no effectual remedy, or method of preventing a recurrence of accidents: all the plans, however, were duly examined, and attentively considered; and the Board of Directors expressed, under date of the 16th of December, 1828, their obligations to the many scientific men who had so spontaneously communicated their several ingenious plans for securing the completion of the undertaking.

With regard to the projects which were offered for the continuance of the work, if the authors had previously informed themselves of the several strata of earth through which the excavation was to be made, they would not, as men of experience, have proposed them for adoption: it being as impossible to proceed with the excavation, and the formation of the arches, without constantly and effectually supporting the soil in every direction, as that an engineer could erect the piers of a bridge without preventing by his coffredam the influx of the water: and in this respect no attempt was made to point out a more secure mode of proceeding, or any improvement in that all important shield, which has gradually advanced a distance of six hundred feet, under the constant pressure of a vast mass of soil, ill suited, in point of consistency, to bear the pressure of the water above, varying, but amounting, at ordinary full tides, to that of a perpendicular of 35 feet.

The works, having remained in a state of total inactivity during a period of seven years, were recommenced under the most favorable auspices; and from the experience gained during the progress of this unprecedented work, the difficulties which has been overcome, and the measures which were adopted for preventing future accidents, there were circumstances to hinder the complete success of this important undertaking. (It has now been completed, and in daily use for several years.)

The situation of the Tunnel with reference to the main roads leading to it.

The distance from London Bridge along Tooley street is 2 miles.

The Great Kent Road, 1 1-2 miles.

Greenwich Church by Deptford Creek 2 1-4 miles.

Mile End Turnpike, 1 1-4 miles.

The Bank of England 2 miles.

To facilitate the access to the Tunnel for the large population in its immediate neighborhood, the carriage descents are circular, and do not exceed in any part the slope of Ludgate Hill, or Waterloo Place, Pall Mall.

The shaft, whence all the tunnnel works were carried on, was built at Rotherhithe in the form of a tower, 50 ft., in height, and 3 feet thick, at about 150 feet from the edge of the wharf, and it was sunk into its position by excavating the earth within. The shaft was finally occupied by an easy double flight of granite steps, for the use of foot passengers through the tunnel.

Parts of the 'shield' as illustrated on page 248.

The divisions of the shield were advanced separately and independently of each other, by the means pointed out in the foregoing sketch: each division, as is attempted to be shown, has boards in front (known by the technical name of poling boards) supported by means of jack screws, which were lodged against the front of the iron frame; these boards are in succession taken down while the earth in front of each is excavated, the first board being always replaced before a second is removed; thus forming a constant firm buttress. The several parts will better understood by reference to the numbers.

1. Poling boards. 2. Jack screws.

3. The 'top staves' covering the upper part of the excavation, till the shield is succeeded by brickwork.

4. Screws to raise or depress the top staves.

5. The legs, being jack screws fixed by ball joints to the shoes 6, upon which the whole division stands.

7 and 8. The sockets, where the top and bottom horizontal screws are fixed to force the division forward.

A transverse section of the Tunnel, (as illustrated in our last number,) shows the dimensions of the mass of brick-work, which is firmly set in cement. The middle wall for greater security is built quite solid.

Interesting Facts, &c., of the late 'Anniversary Week,' in New York City.

At the 31st Annual Meeting of the American Bible Society, E. Corderoy, Esq., seconded a resolution. [The speaker is a delegate from the British and Foreign Bible Society.] God has spoken to man in his written word; in these latter days. His word stands among books, as Adam among men, the first, the fairest, and the noblest. Give me that book. Let me be the man of one book. To circulate this book, men of all classes and creeds and countries, who acknowledge the Bible, have united and universally combined. He had come here to represent the British and Foreign Bible Society, in the midst of this kindred association. How the increase of the circulation of the Scripture had gone on! In 1804 there was not a society for the purpose; in 1847 there are 9000 societies. In 1804, according to the calculation of Dr. Gregory, the whole world did not contain over 4,000,000 of Bibles. In 1847, by the exertions of the British and Foreign Bible Society, the American Bible Society, and kindred associations, there are over 30,000,000 in circulation. In 1804, the bible could be read but in 48 or 49 languages. In 1847, it is legible in 136 languages,—158 languages and dialects. In 1804, the bible was circulating to the extent of some 200,000,000; and now it is circulated among 600,000,000. The British and Foreign Bible Society have the last year distributed 1,419,283 copies, 5000 more than during the previous year; and the amount of money contributed was greater than ever before. £117,430 had been placed in the hands of the society in London. In France, 128,338 copies of the scriptures, irrespective of all institutions of a kindred character, are now distributed, where, but a few years ago, the bible was tied, in derision, to the tail of an ass! Upwards of 200 colporteurs had been employed to do this great work, and they had done it with abounding success.

"Here the speaker gave a very interesting description of the manner in which these useful agents operate. His anecdotes, illustrative of this, were very striking proofs of the utility of this peculiar agency in the circulation of the scriptures. The speaker was eloquent, vigorous, and impressive. No speaker, during the week, has more ably swayed the feelings of his audience. The applause, throughout his remarks, was constant, and was long protracted after he had resumed his seat. His allusions to the aid rendered by America to Ireland, in their distress, were very feeling, and were responded to by the hearty sympathy of all who listened. This recognition of the community of interest, of design, and of object, between the friends of the Bible in England and America, was also responded to by the warmest expressions. One of the most interesting portions of the speech was the speaker's description of the liberal mode in which business is done at the Bible House, in Earl Street, London, by the managers, (Lord Bexley at their head,) and the anecdotes related, in example, were novel and curious. By way of illustrating the effects of a distribution of the Scriptures, Mr. Corderoy related a touching incident which occurred in the examination of a little girls' sunday school, in Ireland. A prize was offered to the child who should have committed to memory the greatest number of verses in the Bible. Two little girls came up to make their report; they were locked arm in arm, and were evidently bosom friends. One reported that she had committed to memory, 3222 verses, and the other, 3221! The examiner, surprised at this, asked one, "Mary, how is this? Could'nt you have learned one more verse, as well as Susan?" To which the child, blushing, replied, "oh, yes, Sir! But I love Susan, and kept back one verse, on purpose!" Whereupon the examiner said, "and, Mary, was there any particular verse in those which you have learned, that gave you the idea of doing this?" Mark the child's reply. "Yes, sir! It was this; "in honor, preferring one another!" [It would be difficult to describe the effect produced upon the audience, large as it was, by the narration of this simple anecdote.] The speaker went on in this manner, for some time, and closed one of the most admirable speeches we ever listened to, by expressing the hope that the audience would not ask of him the Old Testament question, "what dost thou here?" but would greet him, with the New Testament salutation, —"thou hast done well that thou camest."

The resolution was then adopted.

Rev. Professor Mandeville, of Hamil-

ton College, was to have addressed the meeting on the following resolution:

Resolved, That the patrons and friends of this society should, in the exercise of a wise foresight, prepare, as far as preparation may be possible, for an extraordinary enlargement, at no distant day, of the sphere or operations, both at home and abroad.

But indisposition preventing his presence, the next resolution was proposed by Hon. Emery Washburn, of Worcester, Mass., as follows:

Resolved, That the general diffusion of the Holy Scriptures as an efficient measure of domestic police in a republic, deserves the countenance and support of our free institutions.

Mr. Washburn sustained this resolution with great ability, and contended that our Government owed all to the influence of this and kindred societies, for the government had not the police power—the intrinsic power of the police system—sufficient to support law and order for a single year. Let the influence of the Bible be withdrawn and all would soon be anarchy, confusion and outrage.

Drops.

The ocean is composed of drops. Small in themselves, but united they cover two thirds of the globe and bear on their bosom treasures untold. Despise not small things. A word alone may mean nothing and effect nothing; but a union of words carries joy or grief to a thousand bosoms. So small a word as we—a little drop only—might remain glued to the tongue through life and produce no good effect. But unite it to a few more words, such as, 'will do good,' and suiting the action to the words, what may it not produce? Ten thousand hearts may leap with joy at the sound. Precious drops to millions! Are there hearts full of pain and sorrow? Speak—we will do them good—tears give place to smiles—pain departs at the sight of joy, and a world of happiness is born in a day. Precious drops! we repeat. Cherish and scatter them. Like the dew that refreshes the flowers, they will be drawn to heaven by the Son of righteousness, to be exhibited when your account is to be squared at the last day.—SEL.

When young, we trust ourselves too much, and we trust othess too little when old. Rashness is the error of youth, timid caution of age.—LACON.

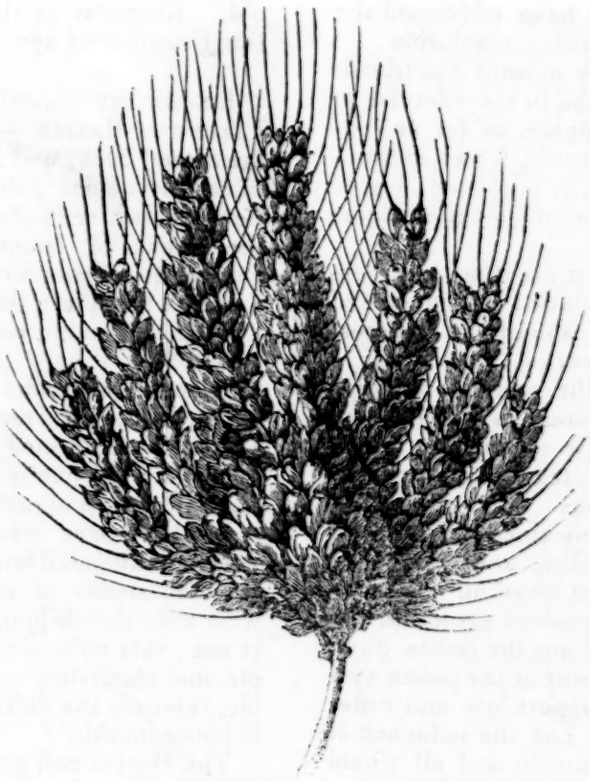
ROGERS AND BLACK'S AMERICAN SIGNAL FLAGS AND MARINE.—We have examined the Signal book, and Marine Roll or List of vessels' names, published by these gentlemen in order to improve and facilitate the means of communication between vessels at sea and along our coasts; and find that they have succeeded in presenting the most important and simple plan with which we are familiar. Their improvements have met the approval of the Navy, War, and Treasury Departments, and we are informed that they are now furnishing the public vessels of the United States with signals and books.

In the winter season, when boarding vessels is attended with danger, and when it is impossible to communicate otherwise with the shipping off our coast or at sea; this code of signals, which is simple, and abounding with all that is desirable, removes the difficulty, and therefore is indispensable.

The Marine roll contains the name and port of entry of every vessel of 20 tons and upwards, registered, and enrolled in the United States, and is arranged so simply, that by the use of two, and not over three letters, painted in a sail or introduced on a flag, the name and port to which every vessel belongs can be indicated, and if they are of a proper size, may be distinguished from 10 to 15 miles. The indicating letters are arranged in the Marine roll, in alphabetical order; and each vessel's name is lettered progressively as follows.

A. A.	Steamer	Nequassis,	Eastport, Me.
A. B.	Bark	Azim,	do.
A. C.	"	Everton,	do.
A. D.	Brig	Atchafalaya,	do.
A. E.	"	Adamant,	do.
K.M.X.	Ship	Ville de Lyon,	N. York.

It will be observed that the letters indicating the names and ports are arranged in progressive order, similar to figures, and as there are more than 14,000 vessels entered in the Marine Roll, it would require five figures opposite all names over 10,000 to indicate their names; but by combining the letters of the alphabet as we do figures, but two or three letters instead of figures are all that is required to indicate the name and port to which the vessel belongs.—*N. Y. Express*



EGYPTIAN WHEAT.

This print is copied from one in Calmet's Appendix, and represents one of the most interesting species of wheat. It is of that sort which is generally supposed to have been alluded to in the Book of Genesis, which contains the account of Pharaoh's dream, where two stalks are spoken of as having seven ears each. So unlike to this are all our cereal, or grain-bearing plants, that we naturally feel at a loss, in reading the passage, what idea to form of the nature and appearance of that referred to.

There were undoubtedly different species of wheat cultivated in the valley of the Nile in ancient times; and that now extensively known as the 'Mummy-wheat,' which we have had the pleasure of sending to many of our old subscribers, was quite different from the above; closely resembling our own varieties of wheat, and differing only as a variety.

Calmet cites a number of passages in the Scriptures, in which the many headed wheat seems to have been in the mind of the prophets and other Old Testament personages, who made so many appropriate figurative uses of those invaluable gifts of HIM, in whose name they spoke or wrote. Interesting and useful associations should be formed in childhood and youth with the common objects of nature. This is desirable not only for our enjoyment in later life, but for the purpose of deriving from them an appropriate kind of aid, in that continual and unceasing improvement of mind and heart, which forms so large a part of the duty of life. In this point the scriptures display, in a striking manner, both the wisdom and the goodness of God; and no reader of the Bible can fail to form impressive associations, in connection with plants of the field.

The drawing was originally made from a specimen of Egyptian wheat raised in 1797, in England, on the small island of Foulness, in Essex, by Mr. Henry Fisher. Only the central ear, however, was perfect, and the others were prolonged in the drawing, to correspond with the descriptions given by persons who had seen it in an undegenerate state. It had then been cultivated by that gentleman for several years, and had produced a much greater crop than any other wheat known in England. Unfortunately the effect of climate was unfavourable, and the side ears had become reduced to mere rudiments.

THE EGYPTIAN FIG-TREE, OR SYCAMORE OF SCRIPTURE.

The Ficus Sycamorus, or Egyptian Fig, is one of the species common in Palestine in ancient times, and still remaining in sufficient numbers, to excite gratifying recollections in travellers who visit that country, properly prepared by study and taste. As will be seen in the print, it differs from other fig trees in bearing its fruit on the trunk, instead of on the branches and twigs. This gives it the appearance of some of our aged and diseased willows and apple trees, whose bodies are often roughened by excrescences. As these are deformities, the first aspect of the tree above is rather repulsive to our eyes: but we may presume that to persons accustomed to regard this appearance as an indication of a fruitful tree, laden with large, ripe and rich figs, it has other associations.

The following description of this tree is from Norden's Travels in Egypt, who says it is called by the Arabs 'giomez,' and is of opinion, with some other writers, that it is decidedly of the species which Zaccheus climbed, to see the Saviour, when he was passing through Jericho, (Luke xix, 4.)

"This sycamore is of the height of a beech, and bears its fruit in a manner quite different from other trees. It has them on the trunk itself, which shoots out little sprigs, in the form of a grape-stalk, at the end of which grows the fruit, close to one another, and like bunches of grapes. The tree is always green, and bears fruit several times in the year, without observing any certain seasons: for I have seen some sycamores that have fruit two months after others. The fruit has the figure and smell of real figs: but is inferior to them in taste, having a disgustful sweetness. Its color is a yellow, inclining to an ochre, shadowed by a flesh color; in the inside it resembles common figs, excepting that it has a blackish coloring, with yellow spots. This sort of tree is pretty common in Egypt. The people, for the greater part, live on its fruits." Norden represents the leaves, in his drawings, as quite small, hardly larger than the fruit.

NEST OF THE WHITE ANT, OR TERMES.

This remarkable species of ant, which unfortunately is too abundant in some parts of India, constructs habitations of wonderful size and solidity, of which we have here a representation by no means exaggerated. Smeathman, who has afforded minute information on the habits of the remarkable insect, has given the particulars which we insert below. We would remark that other species, especially one in Paraguay, seem to rival the Termes in the size of their constructions. As we have before given some facts on this subject, we will here select a point or two of a different character, referring our readers for our previous remarks, to our first volume.

"Smeathman has drawn a comparison between these labours of the termes and the works of man, taking the termes labourer at one-fourth of an inch long, and man at six feet high. When a termes has built one inch, or four times its height, it is equivalent to twenty-four feet, or four times the height of man. One inch of the termes' building being proportionate to twenty-four feet of human building, twelve inches, or one foot, of the former must be proportionate to twelve times twenty-four, or two hundred and eighty-eight feet, of the latter; consequently, when the white ant has built one foot, it has, in point of labour, equalled the exertions of a man who has built two hundred and eighty-eight feet; but as the ant hills are ten feet high, it is evident that human beings must produce a work of two thousand eight hundred and eighty feet in height, to compete with the industry of their brother insect. The Great Pyramid is about one-fifth of this height; and as the solid contents of the ant hill are in the same proportion, they must equally surpass the solid contents of that ancient wonder of the world.

Every one of these hills consists of two distinct parts, the exterior and the interior.

The exterior consists of one shell formed in the manner of a dome, large and strong enough to enclose and shelter the interior from the vicissitudes of the weather, and the inhabitants from the attacks of natural or accidental enemies. It is therefore, in every instance, much stronger than the interior of the building, which, being the habitable part, is divided, with a wonderful degree of regularity and contrivance, into an amazing number of apartments for the residence of the king and queen, and the nursing of their numerous progeny; or appropriated as magazines, to hold provisions.

These hills make their first appearance above ground by a little turret or two in the shape of sugar-loaves, rising a foot or more in height. Soon after, at some little distance, while the first turrets are increasing in height and size, the insects raise others, and so go on, increasing their number, and widening their bases, till the space occupied by their under-ground works becomes covered with a series of these elevations; the centre turret is always the highest; the intervals between the turrets are then filled up, and the whole collected, as it were, under one dome. These interior turrets seem to be intended chiefly as scaffolding for the dome; for they are, in a great part, removed when that has been erected.

When these hills have reached somewhat more than half their height, they furnish a convenient stand, where the wild bulls may be seen to station themselves. [*To be Continued.*

A Year Abroad.

AIX LA CHAPELLE.

After breakfast we set out in search of our passports, having no great desire to partake of the hospitality of a German jailer, and, after a deal of asking, came to the market place, which was filled with peasants, in such picturesque costumes that I was inclined to think some general masquerade was going on. Each stand was protected from the weather by a gigantic umbrella, at least ten feet in diameter, and all the produce was brought in from the country on the backs of small donkeys, driven by rosy-cheeked, fair-haired girls, who were patterns of buxom health, but lacked that graceful manner which is displayed by the poorest peasant lass of France. In the centre of the square is a noble fountain, surmounted by a bronze statue of Charlemagne, flanked, on either side, by an imperial eagle, and opposite to it is the 'Rathhaus,' or town hall, erected on the site of the palace in which he was born. We received our passports in a dirty room, whose roof had once been beautifully painted in fresco, and had a hearty laugh at a celebrated Parisian tailor, who, having neglected to obtain the required 'visée' of a Prussian minister, before entering the kingdom, had been arrested. All that seemed to trouble him was, the mortifying fact that the name Hamn had never reached the ears of the functionary, to whom he cavalierly remarked that he believed 'Rothschild was in the city, and, if so, they had only to apply to him for satisfactory information.' Leaving the sufferer in the fast custody of a file of Prussian soldiers, who seemed like so many machines, we mounted to the third story, to visit the historical saloon, where the old German Emperors used to receive the homage of their subjects, and where several important treaties have been signed, in modern times. The building also contains a gallery of paintings, some of which are of great value, particularly, portraits of Napoleon and Josephine, painted by David, the best extant, presented by the Emperor to the city; and a picture by Holbein, representing the last judgment. The painter was married three times, and has introduced all his spouses in the picture—the first writhing in the flames below, the second awaiting her judgment on earth, and the third mounting with him to heaven.

From the 'Rathhaus' we threaded our way through narrow streets to the Cathedral, a quaint old specimen of Byzantine and early Saxon architecture, clustered in octagonal 'chapelle,' built by Charlemagne, for his burial place, in imitation of the Holy Sepulchre at Jerusalem. It was consecrated in the year 804, by Pope Leo III. with an attendant train of 365 bishops, one for every day in the year; but, on the evening before the ceremony, it was discovered that two of the prelates had not arrived, and it was feared that the grand effect would be marred. The next morning, says the chronicle sold at the cathedral, by authority, magnificent processions swept through the carpetted streets, perfumed with incense and resounding with music; rich silken banners floated in the breeze, some displaying the red cross, others the Templars' symbol, and all crowned with dainty devices, of rare workmanship; the fountains flowed with ruddy Burgundy, and pink champaigne, creaming and sparkling in the sunshine, played aloft in various designs, and fell spontaneously into the open mouths of passing plebeians.

In the church were the assembled chivalry and beauty of the world, knights and dames, helmets and silken scarfs, priests, precious relics and jewels. Soon the music pealed forth, and the procession entered, in goodly array, the Pope seating himself on a purple throne, three steps above that of the princely Charlemagne, and looking around with a vexed air, on account of the vacancies. Judge his joy when, in the two stalls which he expected to find empty, he saw the deceased bishops of Syracuse and Palermo, who had been miraculously raised from their graves and sent to aid the successor of St. Peter—the Te Deum thundered along the aisles, and when the ceremony was completed the ghostly assistants had disappeared.

On entering the church we saw, hanging from the centre of the dome, a massive silver gilt chandelier, in the shape of an imperial crown, and under it, on a level with the pavement, a large marble slab, upon which is simply inscribed—

CAROLO MAGNO.

a lesson which appears to have even touched the heart of Napoleon, who, the garrulous sexton informed us, paced slowly around the stone, and then stood

contemplating the venerated name for some moments in apparent deep thought —little did he imagine that his remains would one day rest under a simple slab at St. Helena.

Charlemagne was buried, by his express orders, in his coronation robes; and, when the tomb was opened, some two hundred years afterwards, the embalmed corpse was found seated on a throne, a crown on its head, and a sceptre fastened in its right hand. The body was clad in the imperial robes, with the celebrated sword Joyeuse by its side, a pilgrim's pouch fastened to the girdle, and an illuminated copy of the gospels on his knees. All the valuables were removed to Vienna, for the coronation ceremonies of the German Emperors, and the bones of the Emperor have been dispersed as relics. We saw the skull in the treasury of the church, enclosed in a silver case, and surrounded by a host of other relics, which excite the wonder of Protestant observers, that, in this enligtened age, people can be so humbugged. Among them are our Savior's leather girdle—a nail of the cross—the sponge which was presented to him filled with vinegar—a lock of the Virgin's hair —the sandals worn by Joseph, during the flight into Egypt, &c. &c. These are the petites—to see the grandes relics two dollars have to be paid to an attendant priest, who burns incense: so we contented ourselves with a look at the outside of the large silver shrine in which they are deposited, and which, with its contents, was given to Charlemagne by Aaron, King of Persia.—They consist of the clothes worn by the Virgin and child, at the nativity, made of coarse yellow cotton cloth—the cloth on which the head of John the Baptist was laid, and the scarf worn by our Saviour at the crucifixion, stained with his blood!

The marble chair on which Charlemagne was seated in his tomb was also shown us, and we were informed that, for a consideration, we might sit on it, the sacristan adding, by way of enhancement, that Napoleon had refused to occupy it, as being unworthy. The real cause of his refusal, however, was undoubtedly a fear that the clergy would take advantage of the moment to ask some privilege. Having failed with Napoleon, the bishop next invited Josephine; and no sooner had the ambitious Creole seated herself than she received a petition, praying that the organ, which had been destroyed by the French troops might be replaced—the boon was granted, and I heard sweet music discoursed from Josephine's organ. But I fear my readers have become tired of relics—at any rate I had, and was glad when my Catholic companions crossed themselves, for the last time, at the door of the church, and enquired the way to the mineral spring.

The water has a temperature of 143 deg. Fahrenheit, and tastes strongly of sulphur. Many invalids resort here to drink it, but the principal attraction is the Redoute, a large building with a grand suite of apartments devoted to games of chance. It is the only licensed gambling establishment in Prussia, and the proprietors pay a large tax to the city, notwithstanding which, they manage to clear about a hundred thousand dollars a year. This is well known, yet the tables are always surrounded with dupes, staking their money on hazard, and rouge et noir. No Prussian is allowto enter, but I found the representatives of almost every other nation seated around tables piled with gold and silver. At one, where they were playing rouge et noir, I stood for nearly an hour, watching the players, particularly an English maiden lady, who has seen some seventy summers, well known in Paris as 'Dagger Brooks,' from having when young stabbed a false lover. Occasionally she won, but generally lost, and at last staked all the remainder of the sum she had brought with her—some two hundred dollars—on the red. 'Make your play,' said the croupier, in a whining voice; "the play is made, the play is settled—five—six—the color gains—the red loses, —and poor Miss Brooks saw her capital swept in with a wooden rake, greatly to her annoyance, for she gave vent to a volley of oaths, and was carried out in a fainting fit.

Returning to the Hotel, Pierre's German friends had procured me some mild tobacco, and I took my first lesson in smoking, which I found was a necessary accomplishment, if I wished to see anything of 'Young Germrny.' In fact, nearly every man I had met during the day was sucking away at a short pipe, some of them having bowls of beautifully painted porcelain. After the first nau-

seating taste had subsided, I got on famously, and found my pipe enabled me to puff away the smoke of my neighbors, who struck me unfavorably, for their conversation, so far as I could understand it, was a braggadocio relation of personal quarrels, or of combats between the burschencraft, or students' clubs, and the Philistines, or citizens—in which the narrator was always victorious. The The next afternoon we all set out for Cologne, and leaving the cars at the station came in view of Father Rhine: the Germans hastened to the bank, washed their hands in the muddy waters, and then struck up their popular air:

'WAS IST DAS DEUTSCHEN VATERLAND.'

[*Boston Atlas.*

U. S. DRY DOCK AT BROOKLYN.—Imagine an oblong pit, nearly 500 feet in length and over 200 broad, the bottom of which will be 36 feet below ordinary high-water mark. To construct a proper floor, capable of resisting the upward pressure of the water, piles between 30 and 40 feet long, and five thousand in number, are to be driven into the bottom, at a distance of two feet, the one from the other. The interstices of these piles are to be filled with a mass, three feet thick, of concrete masonry, composed of broken granite and cement. Across the heads of the piles, next are to be laid timbers one foot square, between which also the above compositions is to be filled in. The whole will then be planked over, forming a smooth surface four hundred feet in length, by one hundred in breadth. Next is to follow another course of timbers (the immediate space being also filled with concrete) and on this another layer of plank. Over all this is to be placed a course of rubble stone flagging, twenty inches thick, on which will be set the fine cut granite, which is to constitute the floor proper of the Dry Dock.

The U. S Dry Dock is expected to be finished in 1849. The original estimate was $850,000, but, like all estimates, has been found, by experience, to be below the real figure. It will be exceeded by, it is supposed, a hundred thousand dollars, making the expense of the work, when finished, about $950,000, or about the cost of the U. S. Dry Dock at Norfolk, Va.

The balance of last year's appropriation will, it is expected, suffice to complete the excavation. For the farther prosecution of the work the sum of $275,000 has been voted in the Navy supply bill recently passed by the House of Representatives, which money will be required for the execution of the masonry.

The expenditures up to the beginning of the present year have been about 450,000 dollars. Of this sum $230,000 have been expended on the cofferdam alone—$57,000 for materials on hand—the engines, pile drivers, cranes, tools, &c., cost, it is supposed, some $60,000

The contracts entered into amount to $157,000, viz.: $112,000 for stone, cement, sand, &c. for the masonry; $32,000 for timber, piles, plank, &c., and about $10,000 for miscellaneous articles, such as iron, spikes, rope, &c.

From this floor, the side walls of cut granite, thirty-six feet high, will spring, not perpendicular, however, but by a successsion of steps or 'altars,' thus allowing the chamber of the Dock to increase in width as the walls rise, until the cavity, which was only thirty feet wide at the bottom becomes ninety-eight feet at the top, and its length, 258 at the bottom, elongates into 358 feet at the surface. This portion of the work alone, will require 100,000 stones, besides 4000 tons of rubble. The Dock will, when finished, accommodate a vessel 330 feet long, or the largest ship in the American Navy. Its entrance will be closed by 2 gates, and the water removed by means of six or eight large pumps, each three or four feet in diameter.—*Albany Argus.*

FIRE AND WATER-PROOF PREPARATIONS.—Slake common stone lime in a close vessel, and when cool pass eight quarts through a fine sieve; add to it 1 quart of fine salt and two gallons pure water. Boil and skim. Then, to every 4 gallons of this mixture, add one and a quarter pounds of rock alum, three fourths of a pound of copperas, half a pound of potash, and five quarts of fine beach sand. This wash will now admit any colouring matter that may be desired, and may be applied with a paint or whitewash brush in the same manner as oil paints. A writer remarking on the good qualities of this preparation for roofs, says: "It looks better than paint, will stop leaks in the roof, prevent moss from growing and when laid upon brick-work, will render it impenetrable to rain or moisture."

AGRICULTURAL.

Flowers, Fruits, &c.

American Institute Conversational Meetings, Friday, Feb. 5th, 1847.—Jas. J. Mapes, Vice President of the Institute, in the Chair; J. W. Chambers, Secretary.

A paper was read on the production of blue flowers of the Hydrangia, translated by H. Meigs, Esq., Secretary of the Farmers' Club of the American Institute, from the Revue Horticole.

Paris, Aug., 1846.

On the production of blue flowers of the Hydrangia.—A long time ago, many amateurs of flowers announced the possibility of causing the rose colored flowers of Hydrangia to pass into blue, by means of iron mixed with the soil,—and we have read in the proceedings of the Horticultural Society in the north of France, that a Horticulturist there had succeeded by this process, in rendering blue some of the flowers of this plant. It has been recommended to obtain this result, to mix with the soil filings of iron, and what is better still, the residue from the grinding of cutting instruments; because the particles are thus much more attenuated than filings. But these methods and many others have been tried in England without success. But Mr. Paxton, from whom we have borrowed some details, observed those four Hydrangias planted in a clayey soil, naturally impregnated with iron, and watered by a very small rivulet of water, flowing from a bed of rocks, the water being very ferruginous; which gave no flower, except of pure blue; while other plants at 30 feet distance, not so watered, preserved their habitual rosy tint. No attempt has succeeded like this natural process. Evidently there was a solution of the per oxide of iron, in an acid, very probably the sulphuric acid. If we can blue the flowers of Hydrangia, we may probably succeed in rendering blue other more interesting flowers. [*N. Y. Evpress.*

Paulownia Imperials.—Extract from the Annals of the Royal Society of Horticulture of Paris, on the subject of the flowering of this new ornamental tree, imported from Japan, as reported by M. Newmann:

"I have the honour of informing the Royal Society of Horticulture, that many of the buds of the Paulownia Imperials, on the tree growing at the Museum of Natural History, which were formed the last autumn, and which consequently have sustained the rigor of the past winrer, are at this date, (April 29th) expanded into perfect flowers of a bright blue color, very much resembling those of the gloxinia candescens. They are large and remain for many days. There are seven or eight combined in each erect panicle, around which they are suspended, and they exhale a sweet and agreeable odor. During the period when these flowers are developing their beauties, the foliage also expands, giving to this fine tree a magnificent appearance. It is a phenomenon altogether new, for flower buds to be so well preserved during the winter, after having been so perfectly formed. The blue color of the flowers of the Paulownia is a peculiarity which will cause it to be greatly sought for by amateurs. This much admired tree, which grows with astonishing vigor, has formed shoots during the third year of its growth, more than ten feet in length, with leaves 20 inches in length, and twenty-two in breadth; and when growing in quite indifferent soil such as the Jardin du Roi. At Versailles, Mr. Massey has planted some trees in peat soil, one of which has formed shoots thirteen feet in height in a single season. This tree is called in Japan 'Kiri,' and a genus has been formed of it under the title of Paulownia, in honor of her Imperial Highness, the hereditary Princess of Holland.

"It is not for the beauty of its flowers alone that this splendid tree has been dedicated to this Princess, but it is for the additional circumstance that the leaf of the "Kiri," adorned with triplicate branches of its flowers, has long served as the emblem of the renowned hero 'Faikasama,' who is still held in the highest veneration by the inhabitants of Japan."

I send you the above translation, supposing it might be acceptable to many of your readers. Wm. R. Prince.

Flushing, Dec. 10, 1845. [*Amer. Agri.*

Agriculture in France.—The landed property of France is valued at 1580 millions sterling. There are 33,000,000 souls, composing 7,000,000 families: Of these, 27,000,000 souls belong to 5,500,000 families, each possessing landed property.—*Eng. Maga.*

JUVENILE DEPARTMENT.

Borrowing and Lending.

If you can help it, borrow not, nor lend :—
A loan oft loseth both itself and friend.

It is very common for boys and girls at school, or at the same trade or business, to borrow pens, pencils, penknives, rulers, thimbles, scissors, &c., &c. It sometimes happens that little kindnesses of this sort are the means of exciting and preserving very desirable feelings; but it often happens that disputes, and contradictions, and false charges are the consequence, and hence we incline to adopt the motto at the head of our article.

If a school boy or girl is provided (as all school children certainly should be) with the proper tools and conveniences for work, and if all take proper care of them, few occasions would occur to borrow, and if there were none to borrow there would be no lending. Those who are careless of the things they own, will be very likely to be careless of the things they borrow, and thus the evil is doubled —yes, more than doubled, for we ought to feel as if it were a much greater evil to lose what is entrusted to us, as a favour, to be returned, than to lose what we call our own, and the loss of which occasions no inconvenience except to ourselves.

We read in the Bible that some young students in theology, finding their seminary was not large enough for their growing numbers, proposed, in manly independence, to go out into the woods to fell the timber to enlarge or rebuild their premises. A famous prophet, who was their teacher, (we suppose,) went with them at their request; and, when they came to the banks of the Jordan, they commenced work in good earnest. It so happened that as one of them was striking a blow, the head of his axe slipped from the helve or handle, and fell into the river. As soon as he saw it sinking to the bottom, he exclaimed to the prophet; 'Alas! master, for it was borrowed!' It was not so much the loss to himself, or the interruption of his labour, that worried him, as the fact that the owner would suffer for having been kind to him. He probably was poor, and could not replace the axe; and the prophet exerted the extraordinary power which God had given to him of working miracles. Upon being shown the place where it fell, he cut a stick and threw it into the water, and the lost axe (contrary to its nature) rose to the surface, and the glad labourer put out his hand and took it.

We do not know what other ends this miracle answered, but we think it teaches us, that we ought to be much more careful to preserve and safely return a borrowed article, than to prevent the loss or injury of our own. [*S. S. P. Gaz.*

Artesian Wells.—A group of little boys and girls were seated around the fire, one cold winter night, listening to one of their number, who was reading aloud. In the book which engaged their attention, something was said about an Artesian well situated in France. The book did not describe these wells, but merely alluded to the fact that there was one in this place. The little folks soon after met with an obliging friend, and begged he would tell them something about the Artesian well. He did so; and as his description may not be uninteresting to other children, we shall give it, as nearly as we can, in his own words.

In many parts of the world, and in some where water is very scarce near the surface, if a hole is bored very deep into the earth, water is found, which is acted upon by a powerful pressure from beneath, and forced all the way up to the surface, through a pipe which is placed in the hole. Sometimes, indeed, this force throws the water from thirty to fifty feet into the air. These wells derive their name from the district of Artois, or the ancient Artesium, where they are abundant. The quantity of water obtained in this way in Artois, is often sufficient to turn the wheels of the mills.

At Tours, in France, the water from one of these wells rushes up with so much force, that a cannon ball, placed in the pipe, is violently thrown up into the air. The water, coming from a great depth, as it does, is always warmer than that obtained from common wells; so that, in some places, it has been used to warm buildings. It is believed by scientific men, that water may be made to flow in the deserts of Africa, by means of the Artesian well. What an illustration of the goodness of God there is in this thing. Some philosophers would tell us that this manner of obtaining water is accounted for by a natural law—the law of 'hydrostatic pressure.' Very well. But who made that law? [Sel.

POETRY.

The Cradle and the Chair.

FROM 'IGNATIA, AND OTHER POEMS."

Know you the ancient manor-house?
It stands beside the wide gray moor,
So lonely that the fearless grouse
Go whirring past the very door;
And many a broken window pane
Lets in the snow, and wind, and rain.

The nightshade climbs the broken pales,
The gold-dust doth the walks emboss,
The ivy all the gable veils,
And o'er the door-step creeps the moss;
The garden flowers stray wide and thin,
And fast the roof is falling in.

Yet once that ancient manor-house
With mirth, and dance, and laughter rang;
Where now swift runs the squeaking mouse,
The merry children tripped and sang;
Now slowly wasting doth it fall,
For they have left their ancient hall.

Pass on—even yet some relics stay
Of those who grew within its shade—
Behold, here crumbleth fast away
The cradle where the babe was laid;
And close beside it, mouldering there,
Stands an old crazy elbow-chair.

And is it fancy that a child
Is in that cradle softly sleeping?
A babe with forehead fair and mild,
And lips like early rose-buds peeping?
Is not that cradle all bedight
With woolen soft, and linen white?

And lo! there is another form:
An aged man, with hoary hair;—
He sits beside the hearthstone warm,
Back leaning in his elbow-chair,
And casting looks of grandsire love
Upon the fair and slumbering dove.

And yet another—there the sire
Beside the little cherub stands,
Softening his manly glance of fire,
And, half unconscious, folds his hands,
Invoking Heaven's most holy grace
Upon that lovely baby's face.

The scene hath changed—the child hath grown
A little thoughtful maid of seven;
And sitteth by the cradle down,
To watch a baby sister given
Unto her care—and oh how pure
That shadeless brow, those lips demure.

And here a double charge is hers—
Her grandsire in the arm-chair sleeps;
She is to watch if either stirs—
If he complain, or baby weeps—
How shall the group be reconciled
Two children guarded by a child!

Another change—an aged man
Again doth fill the elbow chair;
And yet his lips are not so wan,
Not quite so thin and white his hair—
As his who helpless sate there last,
And now unto his rest is past.

And, in the pride of womanhood,
And matron beauty, calm and mild,
One talks to him, in tone subdued,
Lest they awake her slumbering child;
Another picture here, of three,
Yet only one is new to me;

Only the babe—for in that fair,
Bright lady, the sweet child I trace;
And in the old man sitting there,
The features of her father's face;
Less clearly doth his dark eye burn:
He is a child too, in his turn.

Once more a change—a stately dame,
With rustling silk, and head geared high,
Sits in the chair;—one of her name
Again doth in the cradle lie,
Child of the boy by whom she stood,
In her own lovely womanhood.

I trace no more; but where are they
Who passed before my fancy's eye?
All subject unto earth's decay,
In turn within the grave they lie;
Worn out by age, or time, or care,
There find they their last resting chair.

There none need watch their lowly rest—
None shall their daily strength renew—
Oh, well for them, them only blest,
If it shall prove a cradle too,
Where now their dust doth slumbering lie,
At length to wake, and soar on high!—SEL.

French Proverbs, Bon mots, &c.—

13. Le but qu'on se propose ordinairement dans la discussion, ce n'est point la vérité, mais la victoire. Une discussion est un duel de poumons, le triomphe est aux plus robustes.

14. En tout l'à-propos est tout.

Translation of French Proverbs, &c., page 336.—

11. Hope is the staff of the unfortunate through the rough and painful journey of life.

12. Men would be better, if the favors of the public were the reward of great, noble and generous actions.
